

Mathematics

MATHEMATICAL ART OF A GEOMETRIC OFFSPRING

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Sometimes, we see an ordered wavy shape in a series of ripples on television screen or computer monitors. When two repetitive geometric patterns are superimposed, a phantom interference figure may appear, overlaying the original and creating the more complex geometric pattern (known as a moiré pattern). We can explain mathematically how these fascinating illusions are formed, and can also predict their shapes. In addition to discussing the theory, I will also demonstrate sample moiré patterns with several transparencies.